Charles “Chuck” Farrar to receive DeMichele Award

November 21, 2012

Charles “Chuck” Farrar, leader of LANL’s Engineering Institute, will receive the 2013 DeMichele Award from the Society for Experimental Mechanics. The award is presented for demonstrated “exemplary service and support of promoting the science and educational aspects of modal analysis technology” and is given annually at the International Modal Analysis Conference (IMAC).

Farrar will receive the award at the IMAC in Garden Grove, Calif. in February 2013.

The award is named for Dominick J. DeMichele (1916-2000), who directed 13 annual IMACs and was founder and president of Instrumentation and Measurement Technology Services.

Research achievements

Farrar joined the Laboratory in 1983 after receiving a doctorate in civil engineering at the University of New Mexico. He has held the positions of technical staff member, project leader and team leader. Farrar performed experimental and analytical structural dynamics studies for a wide variety of systems, including nuclear power plant structures subjected to seismic loading and weapons components subjected to stockpile-to-target loading environments. Since 1992, he has developed integrated hardware and software solutions to structural health monitoring problems and the development of damage prognosis technology.

In 2000 he founded the Los Alamos Dynamics Summer School, an undergraduate research and education program designed to motivate top U.S. citizen engineering students to attend graduate school. Farrar expanded the concept into a comprehensive education and research collaboration within the University of California system. Working jointly with engineering faculty at the University of California, San Diego (UCSD), Farrar developed the LANL/UCSD Engineering Institute. The Institute integrates advanced predictive modeling capabilities with novel sensing systems and information technology. It includes a formal international partnership, The Engineering Institute-Korea.

Farrar’s professional activities include appointments to associate journal editor positions, and the development of a short course on structural health monitoring that has been offered 21 times to industry and government agencies internationally.

His awards include

- The Royal Academy of Engineers (UK) Distinguished Visiting Fellowship

- Election to Fellow in the American Society of Mechanical Engineers
- Inaugural Structural Health Monitoring Lifetime Achievement Award
- Engineers Australia Eminent Lecture Tour
- Boeing Distinguished Researchers and Scholars Seminar Series
- National Academy of Engineering Japan-American Frontiers in Engineering Symposium Invitee
- Inaugural Los Alamos Fellows Prize for Outstanding Leadership in Science and Engineering
- Best Paper Award (twice)
- NNSA Defense Programs Award of Excellence
- Norfolk Naval Shipyard Certificate of Achievement.

About the Society for Experimental Mechanics

The Society for Experimental Mechanics is composed of international members from academia, government and industry who are committed to interdisciplinary application, research and development, education and active promotion of experimental methods. Its goals are to

- Increase the knowledge of physical phenomena
- Further the understanding of the behavior of materials, structures and systems
- Provide the necessary physical basis and verification for analytical and computational approaches to the development of engineering solutions.